

- Afanasyev, B. P., Yu. R. Gismatullin, and V. I. Ostroumov. Velocities of Residual Nuclei in the Fission of Ag and Br by 460-MeV Protons—719.
- Akimov, Yu. K., L. S. Zolin, A. I. Kalinin, V. A. Nikitin, V. S. Pantuev, L. Rob, V. A. Sviridov, and M. N. Khachatryan. Measurement of the pp - and pd -scattering Differential Cross Section at 4.0 BeV by Means of Semiconductor Detectors—65.
- Ali-Beydovi, M. M., L. D. Blokhintsev, E. I. Dolinskii, and V. V. Turovskiy. Test of the Pole Mechanism of the Direct Nuclear Reactions $A(x, y)B$ —809.
- Alekseev, I. I. and R. I. Sokolovskii. Leptonic Decays of Hyperons—857.
- Aliev, L. G. (see Baranov, S. A.)—477.
- Amineva, T. P., L. G. Dedenko, and S. I. Nikol'skii. Comparison of the Average Characteristics of Extensive Air Showers with Nuclear-cascade Avalanches, Calculated Under Various Assumptions on Nucleon-nucleus Interactions—410.
- Anikina, M., G. Vardenga, M. Zhuravleva, D. Kotlyarevskii, V. Novikov, É. Okonov, G. Takhtamyshv, Wu Tsung-fan, and L. Chkhaidze. Search for New Decay Modes of the K_S^0 Mesons—257.
- Anufrienko, V. B. (see Sal'nikov, O. A.)—831.
- Artkov, I. Z., V. S. Barashenkov, and S. M. Eliseev. Interaction of Elementary Particles with Atomic Nuclei in the Energy Region 1–30 GeV—113.
- Artyukh, A. T., V. V. Volkov, and T. Kwiecinska. Study of Neutron Pickup in the Bombardment of Ta^{181} , Au^{197} , Th^{232} , and U^{238} Isotopes by N^{15} Ions—859.
- Asakhov, A. V. and A. D. Sukhanov. Some Problems of Axiomatic Field Theory in the Zachariasen Model—779.
- Azhgirei, L. S. Elastic πp Scattering Phase-shift Analysis at 657 MeV with Account of One-boson Exchange and Relativistic Coulomb Effects—896.
- Azimov, S. A., B. K. Nikishin, I. V. Rechitskii, and V. M. Chudakov. Inelastic πp Interactions at 17 BeV, With Emission of a Slow Recoil Proton—123.
- Azimov, Ya. I. Angular Functions with Complex Angular Momenta—469.
- Aznaryan, I. G. and L. D. Solov'ev. On Dispersion Sum Rules and $SU(6)$ Symmetry—437.
- Babaev, Z. R. and V. S. Zamirlov. Broken $SU(6)$ -symmetry and Electromagnetic Properties of Baryons—423.
- Bagrov, V. G. (see Ternov, I. M.)—567.
- Bakhtadze, A. K. and I. P. Ivanenko. The Effect of the Polarization of the Medium on the Development and Energy Characteristics of Electron-photon Showers—117.
- Bang Jens, N. S. Zelenskaya, E. Zh. Magzumov, and V. G. Neudachin. Manifestation of the Mechanism Determined by Pole and Four-point Graphs in Direct (i, p) and (He^3, p) Reactions on $1p$ Shell Nuclei—688.
- Baranov, S. A., L. G. Aliev, V. M. Kulakov, and V. M. Shatinskii. The α Decay of U^{232} —477.
- Baranov, S. A., Yu. F. Rodionov, V. M. Kulakov, and V. M. Shatinskii. Alpha Decay of Five Curium Isotopes with Mass Numbers 242–246—798.
- Barashenkov, V. S. (see Artykov, I. Z.)—113.
- Barit, I. Ya. and M. I. Podgoretskii. Resonance Scattering of γ Rays—903.
- Barit, I. Ya. and V. A. Sergeev. Charge-invariant Analysis of Nucleon Scattering Experiments on $A = 3$ Nuclei—507.
- Barmin, V. V., A. G. Dolgolenko, A. G. Meshkovskii, and V. A. Shebanov. Investigation of $\pi^- + p \rightarrow \pi^0 + n$ Exchange Scattering at 2.8 BeV/c—592.
- Baryshevskii, V. G. Natural Rotation of the Neutron Spin Direction—51.
- Baryshevskii, V. G. Birefringence of Gamma Quanta in a Polarized Nuclear Target—749.
- Baz', A. I. Lifetime of Intermediate States—182.
- Baz', A. I. Restrictions on the Energy Dependence of the S Matrix Owing to the Hermiticity of the Hamiltonian—465.
- Baz', A. I., V. F. Demin, and I. I. Kuz'min. Deuteron Stripping as a Special Case of the Three-body Problem—525.
- Baz', A. I., V. F. Demin, and I. I. Kuz'min. Exact Calculations of Deuteron Elastic Scattering and Stripping as Special Cases of the Three-body Problem—815.
- Bedrosyan, P., A. S. Kuchma, and V. A. Morozov. The Lifetime of the 226.9 keV Level in Tb^{155} —645.
- Begzhanov, R. B. and S. L. Rakovitskii. The Levels of the Octupole Band with $K^\pi = 0^-$ —321.
- Begzhanov, R. B., D. A. Gladyshev, Kh. M. Sadykov, and K. T. Teshabaev. Lifetimes of the First Excited Levels of La^{139} and Pm^{147} —789.
- Bekrenev, V. S. (see Grigor'ev, E. P.)—5.
- Beloozerov, N. N. An Equation for the Four-particle Amplitude in Terms of the Two-particle One—632.
- Belousov, A. S., S. V. Rusakov, E. I. Tamm, and L. S. Tatarinskaya. Photoproduction of π^0 Mesons from He^4 Near Threshold—78.
- Belyaev, B. N., V. I. Gudov, A. V. Kalyamin, L. M. Kirzhanskii, and O. M. Lilova. The Decay of the Isotope Os^{180} —Belyaev, S. T. Coherent Pairing Fluctuations and Collective 0^+ Excitations of Nuclei—671.
- Bilen'kaya, S. I., P. Winternitz, F. Lehar, and Z. Janout. Polarization Tensor in the Scattering of Polarized Nucleons by a Polarized Proton Target—95.
- Bilen'kaya, S. I., Yu. M. Kazarinov, F. Lehar, and Z. Janout. Unambiguous Phase-shift Analysis of Nucleon-nucleon Scattering at 23.1 MeV—635.
- Bilen'kii, S. M. and R. M. Ryndin. Reconstruction of the Meson-nucleon Scattering Matrix in Experiments with a Polarized Target—457.
- Bilen'kii, S. M. and R. M. Ryndin. Determination of the Spin and Parity of the Ω^- Hyperon—624.
- Bilen'kii, S. M., L. I. Lapidus, R. M. Ryndin, and L. Sh. Shekhter. Isospin Conservation and Polarization Effects—763.
- Bilibin, L. P. (see Druzhinin, A. A.)—366.
- Birbrair, B. L., G. M. Bukat, and V. N. Guman. Particle-hole Excitations of $A = 40$ Nuclei—337.
- Blinov, M. V., N. M. Kazarinov, and A. N. Protopopov. Comparison of Neutron-emission Characteristics in Fission of U^{235} and U^{238} —848.

- Blokhintsev, L. D. (see Ali-Beydovi, M. M.) — 809.
- Bobrov, V. V. Varlamov, Yu. Grashin, B. Dolgoshein, V. Kirillov-Ugryumov, Yu. Nikitin, V. Roganov, A. Samoilo, and S. Somov. Capture of Negative Muons in Pure Isotopes of Ni and Cr — 53.
- Bokov, O. G. A Remark on the $SU(6)_W$ Symmetry — 280.
- Bokov, O. G., Nguyen Van Hieu, and B. Sredniawa. Electromagnetic Interaction of X Meson in Higher Symmetries — 603.
- Bormot, O. V., V. K. Dolinov, Yu. V. Melikov, and A. F. Tulinov. Study of the Reaction $C^{13}(\alpha, \alpha')C^{12*}(9.64 \text{ MeV}) \rightarrow 3\alpha$ — 227.
- Borukhovich, G. Z. and G. A. Petrov. Kinetic Energies of Fragments from the Thermal-neutron Capture by Nuclei — 563.
- Brinckmann, H. F. (see Rotter, H.) — 178.
- Bugakov, S. S. (see Ivanenko, V. V.) — 837.
- Bukat, G. M. (see Birbrair, B. L.) — 337.
- Bukhovstov, A. P. Depolarization of μ^- Mesons upon Production of μ -mesic Atoms on Nuclei with Spin $I = 1$ — 59.
- Bunatyan, G. G. Isotopic Shift in Spherical Nuclei — 502.
- Bunatyan, G. G. Electric Transitions of Spherical Nuclei — 659.
- Burmistrov, V. R., B. G. Kiselev, V. A. Shilin, and V. L. Kochetkov. Search for Light Neutronic Nuclei Among Uranium Fission Products — 239.
- Cao Chi. "Common Propagator" for Mesons with Spin 2, 1, and 0 in Symmetry Theories — 601.
- Chang Jun-wa (see Evseev, V. S.) — 245.
- Cheblyukov, Yu. N. (see Okorokov, V. V.) — 697.
- Chebotarev, M. A. (see Kudayarov, Yu. A.) — 751.
- Chernavskii, D. S. (see Sisakyan, I. N.) — 462.
- Chernei, M. I. (see Pyatov, N. I.) — 346.
- Chernogorova, V. A. (see Evseev, V. S.) — 245.
- Chernogorova, V. A. (see Evseev, V. S.) — 387.
- Chernov, I. P. (see Nemets, O. F.) — 212.
- Chernukhin, Yu. I. and R. S. Shuvalov. Deuteron Disintegration by 14-MeV Neutrons — 197.
- Chilashvili, G. A. (see Vashkidze, I. Sh.) — 299.
- Chiofi, K. A. (see Mebonia, J. V.) — 868.
- Chkhaidze, L. (see Anikina, M.) — 257.
- Chudakov, V. M. (see Azimov, S. A.) — 123.
- Chukreev, F. E. (see Karadzhev, K. V.) — 648.
- Coz, M. (see Pearson, C. A.) — 537.
- Dao Vong Duc. Radiative Decay of 1^+ Mesons and Unitary Symmetry — 599.
- Dedenko, L. G. (see Amineva, T. P.) — 410.
- Demeter, I., N. G. Zaitseva, Kim Hon Sil, and E. Nadzhakov. The New Isotope W^{114} — 167.
- Demidov, A. M. (see Groshev, L. V.) — 172.
- Demidov, A. M. (see Groshev, L. V.) — 558.
- Demin, A. G. (see Rotter, H.) — 178.
- Demin, V. F. (see Baz', A. I.) — 525.
- Demin, V. F. (see Baz', A. I.) — 815.
- Denisov, S. P. (see Govorkov, B. B.) — 265.
- Devkin, B. V. (see Sal'nikov, O. A.) — 831.
- Doan Nhuong. On a Possibility of Determining the Electromagnetic Form Factors of the W Meson — 88.
- Doan Nhuong. Reconstruction of the Amplitude of the Vector Meson Production Reaction $\pi + N \rightarrow N + \omega(p) = 451$.
- Dolgolenko, A. G. (see Barmin, V. V.) — 592.
- Dolgoshein, B. (see Bobrov, V.) — 53.
- Dolgov, A. D. and L. A. Ponomarev. On Possible Effects of the Violation of CP Invariance in the Radiative Decays of Neutral K Mesons — 262.
- Dolinov, V. K. (see Bormot, O. V.) — 227.
- Dolinskii, E. I. (see Ali-Beydovi, M. M.) — 809.
- Dovbenko, A. G. (see Knonov, V. N.) — 204.
- Dragunov, Yu. G., Yu. V. Melikov, and A. F. Tulinov. Investigation of the (d, α) Reaction on N^{14} and B^{11} Nuclei — 225.
- Druzhinin, A. A., A. A. Lbov, and L. P. Bilibin. Cross Sections of the Reactions $W^{186}(n, 2n)W^{185}$, $W^{184}(n, \gamma)W^{185}$, and $W^{186}(n, \gamma)W^{187}$ for Fission Neutrons and $W^{186}(n, 2n)W^{185}$ and $W^{182}(n, 2n)W^{181}$ for 14.8-MeV Neutrons — 366.
- Dubovikov, M. S. Complete Experiments for the Isobar Production in Meson Nucleon Scattering — 759.
- Dunaitsev, A. F., R. N. Pikhtelev, Yu. D. Prokoshkin, and Yu. N. Simonov. Measurement of π^+ Meson Lifetime — 74.
- D'yachenko, P. P. (see Vorob'eva, V. G.) — 234.
- Dzhibuti, R. I., V. I. Mamasakhlisov, and T. S. Macharadze. Identification of Energy Levels in Light Nuclei by the Disintegration Cross Sections — 37.
- Efimov, G. V. Analytic Properties of Euclidean Amplitudes — 309.
- Eliseev, S. M. (see Artykov, I. Z.) — 113.
- Estulin, I. V. The Low-lying Energy Levels of Ag^{108} — 16.
- Evseev, V. S., V. S. Roganov, V. A. Chernogorova, Chang Jun-wa, and M. Szymczak. Angular Distribution of High Energy Neutrons Emitted in the Absorption of Polarized μ^- Mesons in Ca — 245.
- Evseev, V. S., F. Kil'bing, V. S. Roganov, V. A. Chernogorova, and M. Szymczak. Asymmetry in the Angular Distribution of High-energy Neutrons from μ^- Capture in Sulfur — 387.
- Fakirov, D. G. (see Nikolov, A. V.) — 873.
- Fedorov, V. V. (see Klepikov, N. P.) — 255.
- Feresin, A. P. (see Voikhanskii, M. E.) — 47.
- Fetisov, N. I. (see Sal'nikov, O. A.) — 831.
- Fetisov, V. N. Role of Final-state Nucleon Interaction in the Complete Photodisintegration of Three-particle Nuclei — 513.
- Filimonov, V. A. Decay of Double Hypernuclei with Emission of Σ Hyperons — 725.
- Filimonov, V. A. (see Radetskii, G. M.) — 882.
- Flerov, G. N. (see Kuznetsov, V. I.) — 70.
- Flerov, G. N. (see Kuznetsov, V. I.) — 202.
- Fris, I. (see Winternitz, P.) — 444.
- Galakhmatova, B. S. (see Munib Adel Halil) — 555.
- Galanin, A. D. Quantum Field Theory with Indefinite Metric in Hilbert Space — 149.
- Gerasimov, V. F. Cross Sections for the Fission of Pu^{238} and Am^{241} by Monochromatic Resonance Neutrons — 706.
- Gismatullin, Yu. R. (see Afanas'ev, B. P.) — 719.
- Gladyshev, D. A. (see Begzhanov, R. B.) — 789.
- Golovin, B. M. (see Shulek, P.) — 400.
- Golovnya, V. Ya., A. P. Klyucharev, B. A. Shilyaev, and N. A. Shlyakhov. Elastic Scattering of Low-energy Protons by Medium-atomic-weight Nuclei — 547.
- Golyak, I. G. and V. I. Rus'kin. Arc Inelastic Pion-nucleon

- Interactions at an Energy of 7.5 GeV Essentially Non-peripheral?—622.
- Gordeev, I. V. On the Nonorthogonality of the Wave Functions in the Unified Theory of Nuclear Resonance Reactions—685.
- Gorlov, G. V., N. S. Lebedeva, and V. M. Morozov. Measurement of the Polarization of the Neutron Beam from the (d, d) Reaction by Scattering on Uranium—369.
- Goryachev, B. I., B. S. Ishkhanov, I. M. Kapitonov, Zh. M. Seliverstova, V. G. Shevchenko, and B. A. Yur'ev. Investigation of the (γ, p) Reaction in Silicon—359.
- Govorkov, B. B., S. P. Denisov, and E. V. Minarik. Isospin Amplitudes for S-state Pion Photoproduction on Nucleons—265.
- Grashin, Yu. (see Bobrov, V.)—53.
- Grechukhin, D. P. Two-quantum Nuclear Transitions. The (γ, e) Process—30.
- Grechukhin, D. P. Two-quantum Transitions in Atomic Nuclei; the ee Process—354.
- Grechukhin, D. P. Magnetic Dipole Transition Operator in Phenomenological Models of Collective Quadrupole Excitations of Even-even Nuclei—490.
- Grechukhin, D. P. Magnetic Moments of Even Nuclei in Phenomenological Models of Collective Quadrupole Excitations—682.
- Grechukhin, D. P. Ionization of the Atomic Electron Shell by the Fluctuation Electromagnetic Field of the Heated Nucleus—817.
- Grigor'ev, E. P., A. V. Zolotavin, V. O. Sergeev, and V. S. Bekrenev. Decay of Ta^{182} —5.
- Grin', Yu. T. and V. G. Kamenskii. The Influence of Coriolis Forces on Nuclear α - and γ -transition Probabilities—530.
- Grishanova, S. I. (see Kabchnik, N. M.)—583.
- Grishin, V. G., V. L. Lyuboshitz, V. I. Oglevetskii, and M. I. Podgoretskii. Possible Experimental Tests on the Isotopic Structure of the Electromagnetic Interaction—90.
- Gritsyna, V. T., A. P. Klyucharev, and V. V. Remaev. The Short-lived Isomers La^{137m} , Lu^{173m} , and Ir^{187m} —481.
- Gromov, K. Ya. and F. N. Mukhtasimov. Decay of Ho^{169} —793.
- Groshev, L. V., A. M. Demidov, and N. Shadiev. Spectrum of Gamma Rays Produced in the Capture of Thermal Neutrons by Tellurium—172.
- Groshev, L. V. and A. M. Demidov. Concerning One Specific Feature of Thermal Neutron Capture by Nuclei—558.
- Gudov, V. I. (see Belyaev, B. N.)—163.
- Gulyamov, M., B. V. Rybakov, and V. A. Sidorov. The Reaction $He^4(He^3, n)Be^6$ —66.
- Guman, V. N. (see Birbrair, B. L.)—337.
- Il'in, N. P. and L. I. Sarycheva. Angular Distributions of Muons in the Ground and Under Water and the Mechanism of Their Generation—129.
- Inopin, E. V. and A. V. Shebeko. Inelastic Diffraction Scattering of Particles with Excitation of Nuclear Monopole Oscillations—343.
- Isvaev, P. S. and V. A. Matveev. Cross Section for the Creation of $K\bar{K}$ Pairs in $\pi\pi$ Collisions—144.
- Ishkhanov, B. S. (see Boryachev, B. I.)—359.
- Ishkhanov, B. S., I. M. Kapitonov, V. G. Shevchenko, and B. A. Yur'ev. Photoprotons from Sulfur—544.
- Ivanenko, I. P. (see Bakhtadze, A. K.)—117.
- Ivanenko, I. P. and B. E. Samosudov. Electron and Photon Equilibrium Spectra with Polarization of the Medium and Multiple Scattering Taken into Account—574.
- Ivanenko, V. V., S. S. Bugorkov, K. A. Petrzhak, and A. V. Sorokina. Study of (n, p) Reaction on the Isotopes $Se^{74,76,78}$ at a Neutron Energy $E_n = 14.7$ MeV—837.
- Ivanter, I. G. and D. F. Zaretskii. The Four-fermion Interaction and Lepton Masses—132.
- Ivanter, I. G. Four-fermion Interaction and Electromagnetic Mass Differences of Baryons—596.
- Janout, Z. (see Bilen'kaya, S. I.)—95.
- Janout, Z. (see Kazarinov, Yu. M.)—402.
- Janout, Z. (see Bilen'kaya, S. I.)—635.
- Juan Jung-fang (see Zhukov, B. A.)—107.
- Kabachnik, N. M. and S. I. Grishanova. Elastic and Inelastic Magnetic Scattering of Electrons by Light Nuclei—583.
- Kaidalov, A. B. (see Zakharov, V. I.)—615.
- Kaipov, D. K., Yu. G. Kosyak, and Yu. K. Shubnyi. Deceleration of Slow Recoil Ions—351.
- Kalinin, A. I. (see Akimov, Yu. K.)—63.
- Kalyamin, A. V. (see Belyaev, B. N.)—163.
- Kamenskii, V. G. (see Grin', Yu. T.)—590.
- Kaminskii, V. A. and Yu. V. Orlov. The Role of Unphysical Partial Amplitude Singularities in Deuteron Photodisintegration—84.
- Kaminskii, V. A. and Yu. V. Orlov. Potential Model for the Vertex Parts of the Graphs of Direct Nuclear Reactions—519.
- Kapchigashev, S. P. and Yu. P. Popov. Determination of Level Densities and the Parameter a from Average Capture Cross Sections—486.
- Kapitonov, I. M. (see Goryachev, B. I.)—359.
- Kapitonov, I. M. (see Ishkhanov, B. S.)—544.
- Karadzhov, K. V., V. I. Man'ko, and F. E. Chukreev. Properties of Ar^{36} and Ar^{38} Nuclear Levels Excited in the Capture of Protons by Chlorine Isotopes—648.
- Karnauchov, V. A., G. M. Ter-Akop'yan, L. S. Vertogradov, and L. A. Petrov. Proton Emitters Among Te Isotopes—327.
- Kazachevskii, I. V. (see Levkovskii, V. I.)—904.
- Kazarinov, N. M. (see Blinov, M. V.)—848.
- Kazarinov, Yu. M. and Yu. N. Simonov. Production of π Mesons in np Collisions at 600 MeV—100.
- Kazarinov, Yu. M., F. Lehar, A. F. Pisarev, Yu. N. Simonov, and Z. Janout. Measurement of the Parameter R in the Elastic pn Scattering at 605 MeV and the Nucleon-nucleon Phase Shift Analysis—402.
- Kazarinov, Yu. M. (see Bilen'kaya, S. I.)—635.
- Kel'ner, S. R. ω^0 -meson Production in the Coulomb Field of a Nucleus—454.
- Khachatryan, M. N. (see Akimov, Yu. K.)—63.
- Khalifin, L. A. The Pauli Principle and Unstable Elementary Particles—316.
- Khodel', V. A. (see Sapershtein, É. E.)—497.
- Kil'binger, F. (see Evseev, V. S.)—387.
- Kim Hon Sil (see Demeter, I.)—167.
- Kirillov-Ugryumov, V. (see Bobrov, V.)—53.
- Kiselev, B. G. (see Burmistrov, V. R.)—239.
- Klepikov, N. P. and V. V. Fedorov. Planning of Regressive Experiments with Allowance for the Finite Dimensions of the Instruments—255.
- Klyucharev, A. P. (see Titov, Yu. I.)—221.

- Klyucharev, A. P. (see Golovnya, V. Ya.) - 547.
 Klyucharev, P. P. (see Gritsina, V. T.) - 481.
 Kochevov, V. L. (see Burmistrov, V. R.) - 239.
 Kolesov, V. E. (see Kononov, V. N.) - 204.
 Kolomiets, V. M. and Yu. V. Tsekhmistrenko. Analytic Properties of the Nonrelativistic Multichannel Scattering Amplitude - 140.
 Kondratyuk, L. A. Electromagnetic Transition Form Factors and Inelastic Electron-hadron Scattering - 587.
 Kononov, V. N., Yu. Ya. Stavitskii, V. E. Kolesov, A. G. Dovbenko, V. S. Nesterenko, and V. I. Moroka. Radiative Capture Cross Sections for 30-170 keV Neutrons - 204.
 Kon'shin, V. A., E. S. Matusevich, and V. I. Regushevskii. Fissility of Nuclei in the Region $Z^2/A > 35$ in Fission by High Energy Protons - 69.
 Kon'shin, V. A., E. S. Matusevich, and V. I. Regushevskii. Number and Angular Distribution of Cascade Nucleons Emitted by Nuclei Bombarded by 660-MeV Protons - 242.
 Kopaleishvili, T. I. and I. Z. Machabeli. The Reaction (π^-, n) and Models of the L^2 Nucleus - 27.
 Kopaleishvili, T. I. Absorption of Moving $\pi^\pm$ Mesons by Light Nuclei with the Emission of Two Nucleons, and Nuclear Structure - 382.
 Kopylov, G. I. Forbidden Configurations in the System of Three Photons - 570.
 Kopysov, Yu. S. and V. A. Kuz'min. Disintegration of a Deuteron by a Neutrino - 740.
 Kostyrko, I. I. Mass Calculations for Some Baryon and Meson Multiplets - 415.
 Kosyag, Yu. G. (see Kaipov, D. K.) - 351.
 Kotelnikova, G. V. (see Sal'nikov, O. A.) - 831.
 Kodlyarevskii, D. (see Anikina, M.) - 257.
 Kovtun, L. V. (see Munib Adel Hafil) - 364.
 Krainov, V. P. and M. A. Mikulinskii. Semiclassical Calculation of Isotope Shift - 665.
 Kramer, N. D. and P. T. Prokof'ev. Study of the Decay Scheme of Hf^{178} Produced in (n, γ) Reactions - 165.
 Krizhanskii, L. M. (see Belyaev, B. N.) - 163.
 Kuchin, I. A., A. S. Toleubaeva, and P. A. Usik. Suppression of Large Transfers in Peripheral Interactions as an Effect Due to the Nucleon "Diffuseness" - 72.
 Kuchma, A. S. (see Bedrosyan, P.) - 645.
 Kudeyarov, Yu. A., Yu. F. Smirnov, and M. A. Chebotarev. Scattering of Fast Electrons by Li^2 and the Nucleon Cluster Model - 751.
 Kulakov, V. M. (see Baranov, S. A.) - 798.
 Kulakov, V. M. (see Baranov, S. A.) - 477.
 Kulyukina, L. A. (see Shulek, P.) - 400.
 Kuraev, E. A. (see Volkov, D. V.) - 426.
 Kuzhevskii, B. M. Generation of Deuterium Nuclei in Cosmic Rays - 93.
 Kuz'min, I. I. (see Baz', A. I.) - 525.
 Kuz'min, I. I. (see Baz', A. I.) - 815.
 Kuz'min, V. A. (see Kopysov, Yu. S.) - 740.
 Kuz'minov, B. D. (see Vorob'eva, V. G.) - 234.
 Kuznetsov, V. L., N. K. Skobelev, and G. N. Flerov. Detection of a Spontaneously Fissile Isomer with 2.6-min Half-life in the Nuclear Reactions $\text{U}^{233} + \text{B}^{11}$ and $\text{U}^{233} + \text{B}^{10}$ - 70.
 Kuznetsov, V. L., N. K. Skobelev, and G. N. Flerov. Spontaneously Fissile Neutron-deficient Neptunium Isotope with 60-sec Half-life - 202.
 Kuznetsov, V. I., Yu. V. Lobanov, and V. P. Perehygin. Half-life of the Isotope of the Element 102 with Mass Number 256 - 332.
 Kwicinska, T. (see Artyukh, A. T.) - 839.
 Lapidus, L. I. (see Bilen'kii, S. M.) - 763.
 Lazarenko, L. A. Polarization Effects in the Reaction $\gamma + p \rightarrow p + \eta^0$ - 628.
 Lbov, A. A. (Drushinin, A. A.) - 366.
 Lebedeva, N. S. (see Gorlov, G. V.) - 369.
 Lehar, F. (see Bilen'kaya, S. I.) - 95.
 Lehar, F. (see Kazarinov, Yu. M.) - 402.
 Lehar, F. (see Bilen'kaya, S. I.) - 635.
 Levkovskii, V. I., I. V. Kazachevskii, V. V. Sokol'skii, and G. P. Vinit'skaya. The Iron Isotope Fe^{61} - 904.
 Liloa, O. M. (see Belyaev, B. N.) - 163.
 Listengarten, M. A. (see Volkanskii, M. E.) - 47.
 Lobanov, Yu. V. (see Kuznetsov, V. I.) - 332.
 Lovchikova, G. N. (see Sal'nikov, O. A.) - 831.
 Luk'yanov, V. G. (see Petkov, I. Zh.) - 41.
 Luk'yanov, V. K. (see Petkov, I. Zh.) - 395.
 Lyuboshitz, V. L. (see Grishin, V. I.) - 90.
 Lyuboshitz, V. L. Spontaneous Polarization of Neutrons in Magnetic and Electric Fields - 195.
 Lyuboshitz, V. L. and É. O. Okonov. Interference of $K_L \rightarrow \pi^+ \pi^-$ and $K_S \rightarrow \pi^+ \pi^-$ Decays in Correlation Experiments with $K^0 \bar{K}^0$ Pairs - 859.
 Lyul'ka, V. A. Polarization Effects in Leptonic Decays of Hyperons - 564.
 Machabeli, I. Z. (see Kopaleishvili, T. I.) - 27.
 Macharadze, T. S. (see Dzhibuti, R. I.) - 37.
 Magzumov, E. Zh. (see Bang, Jens) - 688.
 Makarov, A. A. (see Winternitz, P.) - 619.
 Makarov, A. A. (see Winternitz, P.) - 879.
 Maksyutenko, B. P. Delayed Neutrons and the Fission Threshold of Th^{232} - 374.
 Malov, L. A., S. M. Polikanov, and V. G. Solov'ev. Structure of Spontaneously Fissionable Isomers - 376.
 Mamasakhlisov, V. I. (see Dzhibuti, R. I.) - 37.
 Man'ko, V. I. (see Karadzhiev, K. V.) - 648.
 Marinov, M. S. Relativistic Scattering of Electrons by Nuclei with Arbitrary Spin - 271.
 Marinov, M. S. Non-negative Nature of the Polarization Density Matrix - 899.
 Martynov, E. P. and Yu. I. Serebrennikov. Study of the Plane Polarization of Bremsstrahlung from a 15-MeV Betatron - 851.
 Matusevich, E. S. (see Kon'shin, V. A.) - 69.
 Matusevich, E. S. (see Kon'shin, V. A.) - 242.
 Matveev, V. A. (see Isaev, P. S.) - 144.
 Mebonia, J. V. and K. A. Chiofi. On the Theory of Quasi-elastic Knock-out of Protons from Nuclei by High-energy Electrons - 868.
 Medved', S. V. (see Shulek, P.) - 400.
 Melikov, Yu. V. (see Dragunov, Yu. G.) - 225.
 Melikov, Yu. V. (see Bormot, O. V.) - 227.
 Mel'nikov, V. N. and K. A. Ter-Martirosyan. The Experimental Data on Charge Transfer of K Mesons and Nucleons at High Energies and the Theory of Complex Angular Momenta - 770.

- Meshkovskii, A. G. (see Barmin, V. V.) — 592.
 Mikulinskii, M. A. (see Krainov, V. P.) — 665.
 Minarik, E. V. (see Govorkov, B. B.) — 265.
 Moroka, V. I. (see Kononov, V. N.) — 204.
 Morozov, V. A. (see Bedrosyan, P.) — 645.
 Morozov, V. M. (see Gorlov, G. V.) — 369.
 Mukhtasimov, F. N. (see Gromov, K. Ya.) — 793.
 Munib Adel Halil, E. A. Romanovskii, G. F. Timushev, and L. V. Kostun. Proton Polarization in Elastic Scattering by Ni^{34} , Co^{60} , and Ni^{62} — 364.
 Munib Adel Halil, E. A. Romanovskii, T. I. Spasskaya, and B. S. Galakhmatova. Inelastic Scattering of 6.0–6.5-MeV Protons by Ni Isotopes — 555.
 Muziol, G. (see Zhelev, Zh.) — 1.
 Nadzhakov, E. (see Demeter, I.) — 167.
 Nemenov, L. L. (see Zhukov, B. A.) — 107.
 Nemets, O. F., I. S. Sokolov, I. P. Chernov, and V. V. Tokarevskii. Optical-model Analysis of 13.6-MeV Deuteron Elastic Scattering by Medium-weight Nuclei — 212.
 Nemets, O. F., M. V. Sokolov, and B. G. Struzhko. Deuteron Disintegration in the Field of Al, Ni, and Ag Nuclei — 370.
 Nemets, O. F. and A. T. Rudchik. Optical-model Analysis of the Elastic Scattering of 27.2-MeV α Particles by Al^{27} and C^{12} Nuclei — 694.
 Nemirovskii, P. E. Mass Difference of Mirror Nuclei — 334.
 Nesterenko, V. S. (see Kononov, V. N.) — 204.
 Nestorov, V. G., G. N. Smirenkin, and D. I. Shpak. Energy Dependence of the Fragment Distribution in Neutron Fission of U^{235} , U^{238} , and Pu^{239} — 713.
 Neudachin, V. G. (see Bangs, Jens) — 688.
 Nguyen Van Hieu (see Bokov, O. G.) — 603.
 Nikishin, B. K. (see Azimov, S. A.) — 123.
 Nikitin, V. A. (see Akimov, Yu. K.) — 63.
 Nikitin, Yu. (see Bobrov, V.) — 53.
 Nikolov, A. V., I. T. Todorov, and D. G. Fakirov. Mass Formulas in $SU(12) \supset Sp(6) \otimes SU(2)$ Symmetry — 873.
 Nikolov, A. V. and I. T. Todorov. Mass Formulae in the Inhomogeneous $SU(6, 6)$ Group — 754.
 Nikolskii, S. I. (see Amineva, T. P.) — 410.
 Novikov, V. (see Anikina, M.) — 257.
 Novikov, Yu. N. (see Peker, I. K.) — 189.
 Ogievetskii, V. I. (see Grishin, V. G.) — 90.
 Ogievetskii, V. I. and I. V. Polubarinov. The Notoph and its Possible Interactions — 156.
 Ogievetskii, V. I. and I. V. Polubarinov. Eightfold-way Formalism in $SU(3)$ and the 10- and 27-plet — 605.
 Ogievetskii, V. I. and I. V. Polubarinov. Conserved Tensor Currents and the Relativistic Structure of the $SU(6)$ Group — 885.
 Okonov, E. (see Anikina, M.) — 257.
 Okonov, E. O. (see Lyuboshitz, V. L.) — 859.
 Okorokov, V. V., V. M. Serzhin, V. A. Smotryaev, D. I. Tolchenkov, I. S. Trostin, and Yu. M. Chebukov. Neutron Spectra in (d, n) Reactions on Medium Atomic Weight Nuclei — 697.
 Okun', L., B. Pontecorvo, and C. Rubbia. Four-lepton Decays of Charged Pions and Kaons and Possible Anomalous Interactions of Leptons — 864.
 Orlov, Yu. V. (see Kaminskii, V. A.) — 84.
 Orlov, Yu. V. (see Kaminskii, V. A.) — 519.
 Ostroumov, V. I. (see Afanas'ev, B. P.) — 719.
 Ovcharenko, V. I. Sum Rules for the Reduced Probabilities of E2 Transitions in Nonaxial Even-even Nuclei — 22.
 Ovechkin, V. V., T. K. Ragimov, and D. F. Rau. The γ Spectrum of Rh^{100} — 484.
 Pantuev, V. S. (see Akimov, Yu. K.) — 63.
 Pashchenko, L. P. (see Rotter, H.) — 178.
 Pavlovich, P. (see Shulek, P.) — 400.
 Pearson, C. A. and M. Coz. A New Approach to Stripping Calculations — 537.
 Peker, I. K. Spins of Three-particle Isomeric States in Odd-mass Spherical Nuclei — 20.
 Peker, I. K. and Yu. N. Novikov. Spins of Low-lying Multiplet States in Spherical Odd-odd Nuclei — 189.
 Pereygin, V. P. (see Kuznetsov, V. I.) — 332.
 Petkov, I. Zh., V. G. Luk'yanov, and Yu. S. Pol'. Elastic Scattering of Fast Electrons by Nuclei with a Fermi Charge Density Distribution — 41.
 Petkov, I. Zh., V. G. Luk'yanov, and Yu. S. Pol'. Inelastic Scattering of Electrons by Nuclei with Excitation of Collective Levels — 395.
 Petrov, G. A. (see Borukhovich, G. Z.) — 563.
 Petrov, I. A. (see Karnaukhov, V. A.) — 327.
 Petzhak, K. A. (see Ivanenko, V. V.) — 837.
 Pikhchev, R. N. (see Dunaitsev, A. F.) — 74.
 Pik-Pichak, G. A. Fission with Alpha-particle Emission — 826.
 Pisarev, A. F. (see Kazarinov, Yu. M.) — 402.
 Podgoretskii, M. I. (see Grishin, V. G.) — 90.
 Podgoretskii, M. I. (see Barit, I. Ya.) — 903.
 Pol', Yu. S. (see Petkov, I. Zh.) — 41.
 Pol', Yu. S. (see Petkov, I. Zh.) — 395.
 Polikanov, S. M. (see Malov, L. A.) — 376.
 Polubarinov, I. V. (see Ogievetskii, V. I.) — 156.
 Polubarinov, I. V. (see Ogievetskii, V. I.) — 605.
 Polubarinov, I. V. (see Ogievetskii, V. I.) — 885.
 Ponomarev, L. A. (see Dolgov, A. D.) — 262.
 Pontecorvo, B. (see Okun', L.) — 864.
 Popov, Yu. P. (see Kapchigashev, S. P.) — 486.
 Prokof'ev, P. T. (see Kramer, N. D.) — 165.
 Prokoshkin, Yu. D. (see Dunaitsev, A. F.) — 74.
 Prokoshkin, Yu. D. (see Vasilevskii, I. M.) — 390.
 Protopopov, A. N. (see Blinov, M. V.) — 848.
 Pyatov, N. I. and M. I. Cherni. The Probabilities of E2 and E3 Transitions in Odd Deformed Nuclei — 346.
 Radutskii, G. M., A. N. Tabachenko, and V. A. Filimonov. Nonleptonic Four-fermion Interactions with $\Delta S = 1$ and $SU(3)$ Symmetry — 882.
 Ragimov, T. K. (see Ovechkin, V. V.) — 484.
 Rakovitskii, S. L. (see Begzhanov, R. B.) — 321.
 Rau, D. F. (see Ovechkin, V. V.) — 484.
 Rechitskii, I. V. (see Azimov, S. A.) — 123.
 Regushevskii, V. I. (see Kon'shin, V. A.) — 69.
 Regushevskii, V. I. (see Kon'shin, V. A.) — 242.
 Rekalov, M. P. Radiative Decays of Vector Mesons in $SU(6)$ Symmetry — 277.
 Rekalov, M. P. Nonleptonic Decays of Baryons in the Static $SU(6)$ Symmetry Model — 318.
 Rekalov, M. I. Collinear Meson-production Processes in Neutrino-nucleon Interactions and $SU(6)_W$ Symmetry — 432.
 Remaev, V. V. (see Gritsyna, V. T.) — 481.
 Rob, I. (Akimov, Yu. K.) — 63.

- Rodionov, Yu. F. (see Baranov, S. A.) - 798.
 Roganov, V. (see Bobrov, V. I.) - 53.
 Roganov, V. S. (see Evseev, V. S.) - 245.
 Roganov, V. S. (see Evseev, V. S.) - 387.
 Romanovskii, E. A. (see Munib Adel Halil) - 364.
 Romanovskii, E. A. (see Munib Adel Halil) - 555.
 Rotter, H., A. G. Demin, L. P. Pashchenko, and H. F. Brinkmann. The New Isotope Ac^{104} - 178.
 Rubbia, C. (see Okun', L.) - 264.
 Rudchik, A. T. (see Nemets, O. F.) - 694.
 Rusakov, S. V. (see Belousov, A. S.) - 78.
 Rus'kin, V. I. (see Golyak, I. G.) - 622.
 Rybakov, B. V. (see Gulyamov, M.) - 66.
 Ryndin, R. M. (see Bilen'kii, S. M.) - 457.
 Ryndin, R. M. (see Bilen'kii, S. M.) - 624.
 Ryndin, R. M. Spin Tests for Bosons Decaying into Three Spinless Particles - 630.
 Ryndin, R. M. (see Bilen'kii, S. M.) - 763.
 Sadykov, Kh. M. (see Begzhanov, R. B.) - 789.
 Sakharov, A. D. (see Zel'dovich, Ya. B.) - 283.
 Sal'nikov, O. A., N. I. Feisov, G. N. Lovchikova, G. V. Kotelnikova, V. B. Anufriyenko, and B. V. Devkin. Inelastic Scattering Spectra of 14.1-MeV Neutrons and Nuclear Level Densities - 831.
 Samoilov, A. (see Bobrov, V. I.) - 53.
 Samosudov, B. E. (see Ivanenko, I. P.) - 574.
 Sannikov, S. S. Complex Momenta and the Representations of the Poincaré Group - 416.
 Sannikov, S. S. Complex Angular Momentum States in Quantum Mechanics - 638.
 Sapershtein, E. E. and V. A. Khodel'. On the Equation for the Effective Field of a Spherical System. The $1/r^{1/2}$ Shell - 497.
 Sarycheva, L. I. (see Il'ina, N. P.) - 129.
 Savel'ev, A. E. (see Sommer, V. P.) - 901.
 Seliverstova, Zh. M. (see Goryachev, B. I.) - 359.
 Serebrennikov, Yu. I. (see Martynov, E. P.) - 851.
 Serezhin, V. M. (see Okorokov, V. V.) - 697.
 Sergeev, V. A. (see Barit, I. Ya.) - 507.
 Sergeev, V. O. (see Grigor'ev, E. P.) - 5.
 Shabalin, E. P. Isotopic Spin in the Theory of CP-odd Weak Interactions - 744.
 Shadiev, N. (see Groshev, L. V.) - 172.
 Shatinskii, V. M. (see Baranov, S. A.) - 477.
 Shatinskii, V. M. (see Baranov, S. A.) - 798.
 Shebanov, V. A. (see Barmin, V. V.) - 592.
 Shebeko, A. V. (see Inopin, E. V.) - 343.
 Shekhter, L. Sh. (see Bilen'kii, S. M.) - 763.
 Shelepin, L. A. Graphical Methods in the Theory of Angular Momenta - 784.
 Shevchenko, V. G. (see Goryachev, B. I.) - 359.
 Shevchenko, V. G. (see Ishkhanov, B. S.) - 544.
 Shilin, V. A. (see Burmistrov, V. R.) - 239.
 Shilyaev, B. A. (see Golovnya, V. Ya.) - 547.
 Shirokov, M. I. The Velocity of Electromagnetic Radiation in Quantum Electrodynamics - 774.
 Shlyakov, N. A. (see Golovnya, V. Ya.) - 547.
 Shpak, D. L. (see Nesterov, V. G.) - 713.
 Shubnyi, Yu. K. (see Kaipov, D. K.) - 351.
 Shulek, P., B. M. Golovin, L. A. Kulyukina, S. V. Medved', and P. Pavlovich. Fluctuations of Ionization Loss - 400.
 Shuvalov, R. S. (see Chernukhin, Yu. I.) - 197.
 Sidorov, V. A. (see Gulyamov, M.) - 66.
 Simenog, I. V. Polarization Effects in the Inelastic Scattering of Fast Electrons by Nuclei - 578.
 Simonov, Yu. N. (see Dunaitsev, A. F.) - 74.
 Simonov, Yu. N. (see Kazarinov, Yu. M.) - 100.
 Simonov, Yu. N. (see Kazarinov, Yu. M.) - 402.
 Sisakyan, I. N. and D. S. Chernavskii. On the Contribution of Statistical Processes to Elastic Scattering - 462.
 Skobelev, N. K. (see Kuznetsov, V. I.) - 70.
 Skobelev, N. K. (see Kuznetsov, V. I.) - 202.
 Slavnov, A. A. and A. D. Sukhanov. The Lagrangian and Hamiltonian for Vector Electrodynamics in the Heisenberg Picture - 304.
 Smirenkin, G. N. (see Nesterov, V. G.) - 713.
 Smirnov, L. I. The Deuteron and Weak Interactions - 729.
 Smirnov, Yu. F. (see Kudayarov, Yu. A.) - 751.
 Smorodinskii, Ya. A. (see Winternitz, P.) - 444.
 Smotryaev, V. A. (see Okorokov, V. V.) - 697.
 Sokolov, L. S. (see Nemets, O. F.) - 212.
 Sokolov, M. V. (see Nemets, O. F.) - 370.
 Sokolovskii, R. I. (see Alekseev, I. I.) - 857.
 Sokol'skii, V. V. (see Levkovskii, V. I.) - 904.
 Solov'ev, L. D. (see Aznauryan, I. G.) - 437.
 Solov'ev, L. D. (see Zhuravlev, V. I.) - 870.
 Solov'ev, V. G. (see Malov, L. A.) - 376.
 Somov, S. (see Bobrov, V. I.) - 53.
 Sorokina, A. V. (see Ivanenko, V. V.) - 837.
 Spasskaya, T. I. (see Munib Adel Halil) - 555.
 Sredniawa, B. (see Bokov, O. G.) - 603.
 Stavitskii, Yu. Ya. (see Kononov, V. N.) - 204.
 Struzhko, B. G. (see Nemets, O. F.) - 370.
 Sukhanov, A. D. Nonlinear Heisenberg Operators in Quantum Field Theory - 291.
 Sukhanov, A. D. (see Slavnov, A. A.) - 304.
 Sukhanov, A. D. (see Astakhov, A. V.) - 779.
 Suslov, Yu. P. Calculation of β for Supercritical $0^+ \rightarrow 0^+$, $T=1$, $\Delta T=0$ β^+ Transitions and the Value of the Vector Interaction Constant G_V in Beta Decay - 854.
 Sviridov, V. A. (see Akimov, Yu. K.) - 63.
 Synakh, V. S. Double Bremsstrahlung Cross Section in ee Collisions in the Small-angle Approximation - 261.
 Szymczak, M. (see Evseev, V. S.) - 245.
 Szymczak, M. (see Evseev, V. S.) - 387.
 Tabachenko, A. N. (see Radutskii, G. M.) - 882.
 Takhtamyshv, G. (see Anikina, M.) - 257.
 Tamm, E. I. (see Belousov, A. S.) - 78.
 Tarasko, M. Z. (see Vorob'eva, V. G.) - 234.
 Tatarinskaya, L. S. (see Belousov, A. S.) - 78.
 Ter-Akop'yan, G. M. (see Karnaukhov, V. A.) - 327.
 Ter-Martirosyan, K. A. The Simplest Inelastic Processes at High Energies - 766.
 Ter-Martirosyan, K. A. (see Nel'nikov, V. N.) - 770.
 Ternov, I. M. and V. G. Bagrov. The Motion of a Neutral Dirac Particle with an Anomalous Magnetic Moment in an Electric Field - 567.
 Teshabae, K. T. (see Begzhanov, R. B.) - 789.
 Timashev, S. F. On the Mechanism of Two-nucleon Transfer Reactions - 192.
 Timushev, G. F. (see Munib Adel Halil) - 364.
 Titov, Yu. I., A. P. Klyucharev, and V. P. Vypirailenko.

- The Reaction $N^{15}(d, \alpha)C^{13}$ with 0.8–1.8-MeV Deuterons—221.
- Tkach, V. I. (see Volkov, D. V.)—426.
- Todorov, I. T. (see Nikolov, A. V.)—873.
- Todorov, I. T. (see Nikolov, A. V.)—754.
- Tokarevskii, V. V. (see Nemets, O. F.)—212.
- Tolchenkov, D. L. (see Okorokov, V. V.)—697.
- Toleubaeva, A. S. (see Kuchin, I. A.)—72.
- Trostin, I. S. (see Okorokov, V. V.)—697.
- Tsakhmistrenko, Yu. V. (see Kolomiets, V. M.)—140.
- Tulinov, A. F. (see Dragunov, Yu. G.)—225.
- Tulinov, A. F. (see Bormot, O. V.)—227.
- Turovsev, V. V. (see Ali-Beydovi, M. M.)—809.
- Uhlir, M. (see Winternitz, P.)—444.
- Usik, P. A. (see Kuchin, I. A.)—72.
- Vainshtein, A. I. Mass Formulas for Particles with Spins 1 and $\frac{1}{2}$ in Broken $SU(3)$ Symmetry—137.
- Vardenga, G. (see Anikina, M.)—257.
- Varlamov, V. (see Bobrov, V.)—53.
- Vashkidze, I. Sh. and G. A. Chilashvili. Analytical Properties of the Non-relativistic Amplitude in a Soluble Three-particle Model—299.
- Vasilevskii, I. M. and Yu. D. Prokoshkin. Ionization Energy Loss of Protons, Deuterons, and α Particles—390.
- Vertogradov, L. S. (see Karnaukhov, V. A.)—327.
- Vinitskaya, G. P. (see Levkovskii, V. I.)—904.
- Voikhanskii, M. E., M. A. Listengarten, and A. P. Feresin. Penetration Effects in Internal Conversion—47.
- Volkov, D. V., E. A. Kuraev, and V. I. Tkach. Decays of Meson Resonances in the $U(6, 6)$ Symmetry Scheme—426.
- Volkov, V. V. (see Artyukh, A. T.)—839.
- Vorob'eva, V. G., P. P. D'yachenko, B. D. Kuz'minov, and M. Z. Tarasok. Multiparameter Investigations of Fragments in the Fission of U^{235} by Thermal and 5-, 6-, and 7-MeV Neutrons—234.
- Vorotnikov, P. E. Dependence of the Fission Width on the Excitation Energy of the Nucleus—905.
- Vypirailenko, V. D. (see Titov, Yu. I.)—221.
- Winternitz, P. (see Bil'en'kaya, S. I.)—95.
- Winternitz, P., Ya. A. Smorodinskii, M. Uhlir, and I. Fris. Symmetry Groups in Classical and Quantum Mechanics—444.
- Winternitz, P. and A. A. Makarov. Two-meson Annihilation of Baryons in Broken $SL(6, C)$ Symmetry—619.
- Wu Tsung-fan (see Anikina, M.)—257.
- Winternitz, P., A. L. Zubarev, and A. A. Makarov. The Electromagnetic Current and Form Factors for the Meson 35-plet in Broken $SL(6, C)$ Symmetry—879.
- Yur'ev, B. A. (see Goryachev, B. I.)—359.
- Yur'ev, B. A. (see Ishkhanov, B. S.)—544.
- Zaitseva, N. G. (see Demeter, I.)—167.
- Zakharov, V. I. Inelastic Neutrino Processes in $SU(3)$ Symmetry—428.
- Zakharov, V. I. and A. B. Ka'idalov. The Bernstein-Feinberg-Lee Hypothesis and Supercharged Particles—615.
- Zamiralov, V. S. (see Babaev, Z. R.)—423.
- Zaretskii, D. F. (see Ivanter, I. G.)—132.
- Zel'dovich, Ya. B. and A. D. Sakharov. The Quark Structure and Masses of Strongly Interacting Particles—283.
- Zelenskaya, N. S. (see Bang, Jens)—688.
- Zelevinskii, V. G. Neutron Emission Asymmetry in Muon Capture—733.
- Zhelev, Zh. and G. Muzil'. Positron Decay of Eu^{148} —1.
- Zhizimov, L. A. Resonance Scattering of Slow Particles by a Non-central Potential—776.
- Zhukov, B. A., L. L. Nemenov, and Juan Jung-fang. Analysis of the Reactions $\pi N \rightarrow \pi_1 \pi_2 N'$ in the Energy Region up to 1 GeV—107.
- Zhuravlev, V. I. and L. D. Solov'ev. Contribution of the Virtual Compton Effect to the Cross Section for Electron-positron Pair Production—870.
- Zhuravlova, M. (see Anikina, M.)—257.
- Zolin, L. S. (see Akimov, Yu. K.)—63.
- Zolotavin, A. V. (see Grigor'ev, E. P.)—5.
- Zommer, V. P. and A. E. Savel'ev. The Thermodynamic Characteristics of Fission-fragment Nuclei—901.
- Zubarev, A. L. (see Winternitz, P.)—879.

ANALYTIC SUBJECT INDEX TO VOLUME 4

Electromagnetic Interactions of Elementary Particles

Experiment

Theory

Nuclear Reactions and Scattering (Experiment) (classification based on primary particles, except fission)

Reactions Involving γ Rays and Electrons

Reactions Involving Protons

Reactions Involving Neutrons

Reactions Involving d and t Reactions Involving He^3 and α Particles

Heavy Nuclei

Nuclear Fission

Nuclear Reactions and Scattering by Nuclei at High Energies (>10 MeV)

Experiment

Theory

Nuclear Theory

Nuclear Structure

Nuclear Models

Many-particle Theory

Theory of Nuclear Reactions

Theory of Atomic and Molecular Phenomena in Nuclear Processes

Procedures, Accelerators

Properties of Nuclei and Nuclear Spectroscopy

Energy Levels and Transformations

Beta Decay

Strong Interactions of Elementary Particles

Nonresonant Interactions of p , n , π , $\bar{p}$, and $\bar{n}$

Nonresonant Interactions of Strange Particles

Resonant Interactions of Strong Particles

Theory of Strong Interactions and General Theory of Elementary Particles

Symmetries (Including Weak and Electromagnetic Interactions), Transformations

Theory of Scattering and of Reactions

General Theoretical Problems

Ultrahigh Energies, Cosmic Rays

Experiment

Weak Interactions of Elementary Particles

Experiment

Theory

ELECTROMAGNETIC INTERACTIONS OF ELEMENTARY PARTICLES

Experiment

Photoproduction of π^0 Mesons from He^4 Near Threshold. A. S. Belousov, S. V. Rusakov, E. I. Tamm, and L. S. Tatarinskaya—78.

Isospin Amplitudes for S -state Pion Photoproduction on Nucleons. B. B. Govorkov, S. P. Denisov, and E. V. Minarik—265.

Ionization Energy Loss of Protons, Deuterons, and α Particles. I. M. Vasilevskii and Yu. D. Prokoshkin—390.

Theory

Elastic Scattering of Fast Electrons by Nuclei with a Fermi Charge Density Distribution. I. Zh. Petkov, V. G. Luk'yanov, and Yu. S. Pol'—41.

The Role of Unphysical Partial Amplitude Singularities in Deuteron Photodisintegration. V. A. Kaminskii and Yu. V. Orlov—84.

On a Possibility of Determining the Electromagnetic Form Factors of the W Meson. Doan Nhuong—88.

Possible Experimental Tests of the Isotopic Structure of the Electromagnetic Interaction. V. G. Grishin, V. L. Lyuboshitz, V. I. Ogievetskii, and M. I. Podgoretskii—90.

Spontaneous Polarization of Neutrons in Magnetic and Electric Fields. V. L. Lyuboshitz—195.

Double Bremsstrahlung Cross Section in ee Collisions in the Small-angle Approximation. V. S. Synakh—261.

Relativistic Scattering of Electrons by Nuclei with Arbitrary Spin. M. S. Marinov—271.

Radiative Decays of Vector Mesons in $SU(6)$ Symmetry. M. P. Rekaló—277.

Inelastic Scattering of Electrons by Nuclei with Excitation of Collective Levels. I. Zh. Petkov, V. K. Luk'yanov, and Yu. S. Pol'—395.

Fluctuations of Ionization Loss. P. Shulek, B. M. Golovin, L. A. Kulyukina, S. V. Medved', and P. Pavlovich—400.

ω -meson Production in the Coulomb Field of a Nucleus. S. R. Kefner—454.

The Motion of a Neutral Dirac Particle with an Anomalous Magnetic Moment in an Electric Field. I. M. Ternov and V. G. Bagrov—567.

Forbidden Configurations in the System of Three Photons. G. I. Kopylov—570.

Electron and Photon Equilibrium Spectra with Polarization of the Medium and Multiple Scattering Taken into Account. I. P. Ivanenko and B. E. Samosudov—574.

Polarization Effects in the Inelastic Scattering of Fast Electrons by Nuclei. I. V. Simenog—578.

Elastic and Inelastic Magnetic Scattering of Electrons by Light Nuclei. N. M. Kabachnik and S. I. Grishanova—583.

Electromagnetic Transition Form Factors and Inelastic Electron-hadron Scattering. L. A. Kondratyuk—587.

Four-fermion Interaction and Electromagnetic Mass Differences of Baryons. I. G. Ivanter—596.

Polarization Effects in the Reaction $\gamma + p \rightarrow p + \gamma^0$. L. A. Lazarenko—628.

Birefringence of Gamma Quanta in a Polarized Nuclear Target. V. G. Baryshevskii—749.

Scattering of Fast Electrons by Li^3 and the Nucleon Cluster Model. Ya. A. Kudeyarov, Yu. F. Smirnov, and M. A. Chebotarev—751.

The Velocity of Electromagnetic Radiation in Quantum Electrodynamics. M. I. Shirokov—774.

On the Theory of Quasielastic Knock-out of Protons from Nuclei by High-energy Electrons. J. V. Mebonia and K. A. Chiofi—868.

Contribution of the Virtual Compton Effect to the Cross Section for Electron-positron Pair Production. V. I. Zhuravlev and L. D. Solov'ev—870.

Resonant Scattering of Gamma Rays. I. Ya. Barit and M. I. Podgoretskii—903.

NUCLEAR REACTIONS AND SCATTERING (EXPERIMENT)

(classification based on Primary Particles, except fission)

Reactions Involving γ Rays and Electrons

Investigation of the (γ, p) Reaction in Silicon. B. I. Goryachev, B. S. Ishkhanov, I. M. Kapitonov, Zh. M. Seliverstova, V. G. Shevchenko, and B. A. Yur'ev—359.

Photoprotons from Sulfur. B. S. Ishkhanov, I. M. Kapitonov, V. G. Shevchenko, and B. A. Yur'ev—544.

Reactions Involving Protons

Measurement of the pp - and pd -scattering Differential Cross Section at 4.0 BeV by Means of Semiconductor Detectors. Yu. K. Akimov, L. S. Zolin, A. I. Kalinin, V. A. Nikitin, V. S. Pantuev, L. Rob, V. A. Sviridov, and M. N. Khachatryan—63.

Proton Polarization in Elastic Scattering by Ni^{58} , Co^{60} , and Ni^{62} . Munib Adel Halil, E. A. Romanovskii, G. F. Timushev, and L. V. Kovtun—364.

Photoprotons from Sulfur. B. S. Ishkhanov, I. M. Kapitonov, V. G. Shevchenko, and B. A. Yurev—544.

Elastic Scattering of Low-energy Protons by Medium-atomic-weight Nuclei. V. Ya. Golovnya, A. P. Klyucharev, B. A. Shilyaev, and N. A. Shlyakhov—547.

Inelastic Scattering of 6.0–6.5-MeV Protons by Ni Isotopes. Munib Adel Halil, E. A. Romanovskii, T. I. Spasskaya, and B. S. Galakhmatova—555.

Reactions Involving Neutrons

Radiative Capture Cross Sections for 30–170 keV Neutrons. V. N. Kononov, Yu. Ya. Stavitskii, V. E. Kolesov, A. G. Dovbenko, V. S. Nesterenko, and V. I. Moroka—204.

Deuteron Disintegration by 14-MeV Neutrons. Yu. I. Chernukhin and R. S. Shuvalov—197.

Cross Sections of the Reactions $W^{186}(n, 2n)W^{185}$, $W^{186}(n, \gamma)W^{187}$, and $W^{186}(n, \gamma)W^{187}$ for Fission Neutrons and $W^{186}(n, 2n)W^{185}$ and $W^{186}(n, 2n)W^{187}$ for 14.8-MeV Neutrons. A. A. Druzhinin, A. A. Lbov, and L. P. Bilbin—366.

Measurement of the Polarization of the Neutron Beam from the (d, d) Reaction by Scattering on Uranium. G. V. Gorlov, N. S. Lebedeva, and V. M. Morozov—369.

Concerning One Specific Feature of Thermal Neutron Capture by Nuclei. L. V. Groshev and A. M. Demidov—558.

Neutron Spectra in (d, n) Reactions on Medium Atomic Weight Nuclei. V. V. Okorokov, V. M. Serezhin, V. A. Smotryaev, D. L. Tolchenkov, I. S. Trostin, and Yu. N. Cheblukov—697.

Inelastic Scattering Spectra of 14.1-MeV Neutrons and Nuclear Level Densities. O. A. Sal'nikov, N. I. Feitsov, G. N. Lovchikova, G. V. Kotelnikova, V. B. Anufrienko, and B. V. Devkin—831.

Study of (n, p) Reaction on the Isotopes $Se^{74,76,78}$ at a Neutron Energy $E_n = 14.7$ MeV. V. V. Ivanenko, S. S. Bugorkov, K. A. Petrzhak, and A. V. Sorokina—837.

Reactions Involving d and t

Deuteron Disintegration by 14-MeV Neutrons. Yu. I. Chernukhin and R. S. Shuvalov—197.

Optical-model Analysis of 13.6-MeV Deuteron Elastic Scattering by Medium-weight Nuclei. O. F. Nemets, L. S. Sokolov, I. P. Chernov, and V. V. Tokarevskii—212.

The Reaction $N^{15}(d, \alpha)C^{12}$ with 0.8–1.8-MeV Deuterons. Yu. I. Titov, A. P. Klyucharev, and V. D. Vypritsenko—221.

Investigation of the (d, α) Reaction on N^{14} and B^{11} Nuclei. Yu. G. Dragunov, Yu. V. Melikov, and A. F. Tulinov—225.

Deuteron Disintegration in the Field of Al, Ni, and Ag Nuclei. O. F. Nemets, M. V. Sokolov, and B. G. Struzhko—370.

Neutron Spectra in (d, n) Reactions on Medium Atomic Weight Nuclei. V. V. Okorokov, V. M. Serezhin, V. A. Smotryaev, D. I. Tolchenkov, I. S. Trostin, and Yu. N. Cheblukov—697.

Reactions Involving He^3 and α Particles

The Reaction $He^3(He^3, n)Be^6$. M. Gulyamov, B. V. Rybakov, and V. A. Sidorov—66.

Study of the Reaction $C^{12}(\alpha, \alpha')C^{12}^*(9.64 \text{ MeV}) \rightarrow 3\alpha$. O. V. Borimov, V. K. Dolinov, Yu. V. Melikov, and A. F. Tulinov—227.

Optical-model Analysis of the Elastic Scattering of 27.2-MeV α Particles. O. F. Nemets and A. T. Rudchik—694.

Heavy Nuclei

Fissility of Nuclei in the Region $Z^2/A > 35$ in Fission by High Energy Protons. V. A. Kon'shin, E. S. Matusevich, and V. I. Regushevskii—69.

Detection of a Spontaneously Fissile Isomer with 2.6-min Half-life in the Nuclear Reactions $U^{233} + B^{11}$ and $U^{233} + B^{10}$. V. I. Kuznetsov, N. K. Skobelev, and G. N. Flerov—70.

Study of Neutron Pickup in the Bombardment of Ta^{181} , Au^{197} , Th^{232} , and U^{238} Isotopes by N^{15} Ions. A. T. Artyukh, V. V. Volkov, and T. Kwiecinska—839.

Nuclear Fission

Spontaneously Fissile Neutron-deficient Neptunium Isotope with 60-sec Half-life. V. I. Kuznetsov, N. K. Skobelev, and G. N. Flerov—202.

Multiparameter Investigations of Fragments in the Fission of U^{235} by Thermal and 5-, 6-, and 7-MeV Neutrons. V. G. Vorob'eva, P. P. Dyachenko, B. D. Kuz'minov, and M. Z. Tarasov—234.

Search for Light Neutronic Nuclei Among Uranium Fission Products. V. R. Burnistrov, B. G. Kiselev, V. A. Shilin, and V. L. Kochetkov—239.

- Delayed Neutrons at the Fission Threshold of Th^{232} . B. P. Maksyutenko—374.
- Kinetic Energies of Fragments from the Thermal-neutron Fission of Pu^{241} . G. Z. Borukhovich and G. A. Petrov—563.
- Manifestation of the Mechanism Determined by Pole and Four-point Graphs in Direct (t, p) and (He^3, p) Reactions on $1p$ Shell Nuclei. Jens Bang, N. S. Zelenskaya, E. Zh. Magzumov, and V. G. Neudachin—688.
- Cross Sections for the Fission of Pu^{238} and Am^{241} by Monochromatic Resonance Neutrons. V. F. Gerasimov—706.
- Comparison of Neutron-emission Characteristics in Fission of U^{235} and U^{238} . M. V. Blinov, N. M. Kazarinov, and A. N. Protopopov—848.

NUCLEAR REACTIONS AND SCATTERING BY NUCLEI AT HIGH ENERGIES (>100 MeV)

Experiment

- Number and Angular Distribution of Cascade Nucleons Emitted by Nuclei Bombarded by 660-MeV Protons. V. A. Kon'shin, E. S. Matushevich, and V. I. Regushevskii—242.
- Velocities of Residual Nuclei in the Fission of Ag and Br by 460-MeV Protons. B. P. Afanas'ev, Yu. R. Gismatulin, and V. I. Ostroumov—719.

Theory

- Absorption of Moving $\pi^\pm$ Mesons by Light Nuclei with the Emission of Two Nucleons, and Nuclear Structure. T. I. Kopaleishvili—382.

NUCLEAR THEORY

Nuclear Structure

- Spins of Three-particle Isomeric States in Odd-mass Spherical Nuclei. L. K. Peker—20.
- Spins of Low-lying Multiplet States in Spherical Odd-odd Nuclei. L. K. Peker and Yu. N. Novikov—189.
- Mass Difference of Mirror Nuclei. P. É. Nemirovskii—334.
- Absorption of Moving $\pi^\pm$ Mesons by Light Nuclei with the Emission of Two Nucleons, and Nuclear Structure. T. I. Kopaleishvili—382.
- Determination of Level Densities and the Parameter a from Average Capture Cross Sections. S. P. Kapchigashvili and Yu. P. Popov—486.
- Isotopic Shift in Spherical Nuclei. G. G. Bunatyan—502.
- Semiclassical Calculation of Isotope Shift. V. P. Krainov and M. A. Mikulinskii—665.

Nuclear Models

- The Reaction (π^-, nn) and Models of the Li^6 Nucleus. T. I. Kopaleishvili and I. Z. Machabeli—27.
- Optical-model Analysis of 13.6-MeV Deuteron Elastic Scattering by Medium-weight Nuclei. O. F. Nemets, L. S. Sokolov, I. P. Chernov, and V. V. Tokarevskii—212.
- Magnetic Dipole Transition Operator in Phenomenological Models of Collective Quadrupole Excitations of Even-even Nuclei. D. P. Grechukhin—490.

- Elastic and Inelastic Scattering of Electrons by Light Nuclei. N. M. Kabachnik and S. I. Grishanova—583.
- Electric Transitions of Spherical Nuclei. G. G. Bunatyan—659.
- Magnetic Moments of Even Nuclei in Phenomenological Models of Collective Quadrupole Excitations. D. P. Grechukhin—682.
- Optical-model Analysis of the Elastic Scattering of 27.2-MeV α Particles. O. F. Nemets and A. T. Rudchik—694.
- Scattering of Fast Electrons by Li^6 and the Nucleon Cluster Model. Yu. A. Kudeyarov, Yu. F. Smirnov, and M. A. Chebotarev—751.

Many-particle Theory

- Particle-hole Excitations of $A=40$ Nuclei. B. L. Birbrair, G. M. Bukat, and V. N. Guman—337.
- On the Equation for the Effective Field of a Spherical System. The $1/7^{1/2}$ Shell. É. E. Saphershtein and V. A. Khodel'—497.
- Isotopic Shift in Spherical Nuclei. G. G. Bunatyan—502.
- Coherent Pairing Fluctuations and Collective 0^+ Excitations of Nuclei. S. T. Belyaev—671.

Theory of Nuclear Reactions

- Sum Rules for the Reduced Probabilities of $E2$ Transitions in Nonaxial Even-even Nuclei. V. I. Ovcharenko—22.
- Two-quantum Nuclear Transitions. The (γ, e) Process. D. P. Grechukhin—30.
- Identification of Energy Levels in Light Nuclei by the Disintegration Cross Sections. R. I. Dzhibuti, V. I. Mamasakhlisov, and T. S. Macharadze—37.
- Elastic Scattering of Fast Electrons by Nuclei with a Fermi Charge Density Distribution. I. Zh. Petkov, V. G. Luk'yanov, and Yu. S. Pol'—41.
- On the Mechanism of Two-nucleon Transfer Reactions. S. F. Timashev—192.
- Inelastic Diffraction Scattering of Particles with Excitation of Nuclear Monopole Oscillations. E. V. Inopin and A. V. Shebeko—343.
- The Probabilities of $E2$ and $E3$ Transitions in Odd Deformed Nuclei. N. I. Pyatov and M. I. Cherne—346.
- Two-quantum Transitions in Atomic Nuclei; the ee Process. D. P. Grechukhin—354.
- Inelastic Scattering of Electrons by Nuclei with Excitation of Collective Levels. I. Zh. Petkov, V. K. Luk'yanov, and Yu. S. Pol'—395.
- Charge-invariant Analysis of Nucleon Scattering Experiments on $A=3$ Nuclei. I. Ya. Barit and V. A. Sergeev—507.
- Role of Final-state Nucleon Interaction in the Complete Photodisintegration of Three-particle Nuclei. V. N. Fetisov—513.
- Potential Model for the Vertex Parts of the Graphs of Direct Nuclear Reactions. V. A. Kaminskii and Yu. V. Orlov—519.
- Deuteron Stripping as a Special Case of the Three-body Problem. A. I. Baz', V. F. Demin, and I. I. Kuz'min—525.
- The Influence of Coriolis Forces on Nuclear α - and γ -transition Probabilities. Yu. T. Grin' and V. G. Kamen'skii—530.

- A New Approach to Stripping Calculations. C. A. Pearson and M. Coz—537.
- Concerning One Specific Feature of Thermal Neutron Capture by Nuclei. L. V. Groshev and A. M. Demidov—558.
- Electric Transitions of Spherical Nuclei. G. G. Bunatyan—659.
- On the Nonorthogonality of the Wave Functions in the Unified Theory of Nuclear Resonance Reactions. I. V. Gordeev—685.
- Manifestation of the Mechanism Determined by Pole and Four-point Graphs in Direct (t, p) and (He^3, p) Reactions on $1p$ Shell Nuclei. Jens Bang, N. S. Zelenskaya, E. Zh. Magzumov, and V. G. Neudachin—688.
- Test of the Pole Mechanism of the Direct Nuclear Reactions $A(\alpha, \gamma)B$. M. M. Ali-Beydovi, L. D. Blokhintsev, E. I. Dolinskii, and V. V. Turovtsev—809.
- Exact Calculations of Deuteron Elastic Scattering and Stripping as Special Cases of the Three-body Problem. A. I. Baz', V. F. Demin, and I. I. Kuz'min—815.

Theory of Atomic and Molecular Phenomena in Nuclear Processes

- Two-quantum Nuclear Transitions. The (γ, e) Process. D. P. Grechukhin—30.
- Penetration Effects in Internal Conversion. M. E. Voikhanskii, M. A. Listengarten, and A. P. Feresin—47.
- Capture of Negative Muons in Pure Isotopes of Ni and Cr. V. Bobrov, V. Varlamov, Yu. Grashin, B. Dolgo-sheint, V. Kirillov-Ugrymov, Yu. Nikitin, V. Roganov, A. Samoilov, and S. Somov—53.
- Depolarization of μ^- Mesons upon Production of μ -mesic Atoms on Nuclei with Spin $I = 1$. A. P. Bukhvostov—59.
- Deceleration of Slow Recoil Ions. D. K. Kaipov, Yu. G. Kosyak, and Yu. K. Shubnyi—351.
- Two-quantum Transitions in Atomic Nuclei; the ee Process. D. P. Grechukhin—354.
- Ionization of the Atomic Electron Shell by the Fluctuation Electromagnetic Field of the Heated Nucleus. D. P. Grechukhin—817.

Nuclear Fission

- Structure of Spontaneously Fissionable Isomers. L. A. Malov, S. M. Polikanov, and V. G. Solov'ev—376.
- Fission with Alpha-particle Emission. G. A. Pik-Pichak—826.
- The Thermodynamic Characteristics of Fission-fragment Nuclei. V. P. Zommer and A. E. Savel'ev—901.
- Dependence of the Fission Width on the Excitation Energy of the Nucleus. P. E. Vorotnikov—905.

PROCEDURES, ACCELERATORS

- Planning of Regressive Experiments with Allowance for the Finite Dimensions of the Instruments. N. P. Klepikov and V. V. Fedorov—255.
- Study of the Plane Polarization of Bremsstrahlung from a 15-MeV Betatron. E. P. Martynov and Yu. I. Serebrennikov—851.

PROPERTIES OF NUCLEI AND NUCLEAR SPECTROSCOPY (EXPERIMENT)

Beta Decay

- Positron Decay of Eu^{148} . Zh. Zhelev and G. Muzil'—1.
- The Decay of the Isotope Os^{190} . B. N. Belyaev, V. I. Gudov, A. V. Kalyamin, L. M. Krizhanskii, and O. M. Lilova—163.

Nuclear Levels and Transformations

- Decay of Ta^{182} . E. P. Grigor'ev, A. V. Zolotavin, V. O. Sergeev, and V. S. Bekrenev—5.
- The Low-lying Energy Levels of Ag^{108} . I. V. Estulin—16.
- The Decay of the Isotope Os^{190} . B. N. Belyaev, V. I. Gudov, A. V. Kalyamin, L. M. Krizhanskii, and O. M. Lilova—163.
- Study of the Decay Scheme of Hf^{177} Produced in (n, γ) Reactions. N. D. Kramer and P. T. Prokof'ev—165.
- The New Isotope W^{174} . I. Demeter, N. G. Zaitseva, Kim Hon Sil, and E. Nadzhakov—167.
- Spectrum of Gamma Rays Produced in the Capture of Thermal Neutrons by Tellurium. L. V. Groshev, A. M. Demidov, and N. Shadiev—172.
- The New Isotope Ac^{218} . H. Rotter, A. G. Demin, L. P. Pashchenko, and H. F. Brinckmann—178.
- The Levels of the Octupole Band with $K^\pi = 0^-$. R. B. Begzhanov and S. L. Rakovitskii—321.
- Proton Emitters Among Te Isotopes. V. A. Karnaukhov, G. M. Ter-Akop'yan, L. S. Vertogradov, and L. A. Petrov—327.
- Half-life of the Isotope of the Element 102 with Mass Number 256. V. I. Kuznetsov, Yu. V. Lobanov, and V. P. Pereygin—332.
- The α Decay of U^{232} . S. A. Baranov, L. G. Aliev, V. M. Kulakov, and V. M. Shatinskii—477.
- The Short-lived Isomers La^{137m} , Lu^{172m} , and Ir^{197m} . V. T. Gritsyna, A. P. Klyucharev, and V. V. Remaev—481.
- The γ Spectrum of Rh^{106} . V. V. Ovechkin, T. K. Ragimov, and D. F. Rau—484.
- The Life-time of the 226.9 keV Level in Tb^{158} . P. Bedrosyan, A. S. Kuchma, and V. A. Morozov—645.
- Properties of Ar^{36} and Ar^{38} Nuclear Levels Excited in the Capture of Protons by Chlorine Isotopes. K. V. Karadzhiev, V. I. Man'ko, and F. E. Chukreev—648.
- Lifetimes of the First Excited Levels of La^{139} and Pm^{147} . R. B. Begzhanov, D. A. Gladyshev, Kh. M. Sadykov, and K. T. Teshbaev—789.
- Decay of Hol^{192} . K. Ya. Gromov and F. N. Kukhtasimov—
- Alpha Decay of Five Curium Isotopes with Mass Numbers 242–246. S. A. Baranov, Yu. F. Rodionov, V. M. Kulakov, and V. M. Shatinskii—798.
- The Iron Isotope Fe^{61} . V. I. Levkovskii, I. V. Kazachevskii, V. V. Sokol'skii, and G. P. Vinitskaya—904.

STRONG INTERACTIONS OF ELEMENTARY PARTICLES

Nonresonant Interactions of $p, n, \pi, \bar{p}$, and $\bar{n}$

- Isospin Amplitudes for S-state Pion Photoproduction on

- Nucleons. B. B. Govorkov, S. P. Denisov, and E. V. Minarik—265.
- Photoproduction of π^0 Mesons from He^4 Near Threshold. A. S. Belousov, S. V. Rusakov, E. I. Tamm, and L. S. Tatarinskaya—78.
- Production of π Mesons in $n\bar{p}$ Collisions at 600 MeV. Yu. M. Kazarinov and Yu. N. Simonov—100.
- Measurement of the Parameter R in the Elastic pn Scattering at 605 MeV and the Nucleon-nucleon Phase Shift Analysis. Yu. M. Kazarinov, F. Lehar, A. F. Pisarev, Yu. N. Simonov, and Z. Janout—402.
- Investigation of $\pi^- + p \rightarrow \pi^0 + n$ Exchange Scattering at 2.8 BeV/c. V. V. Barmin, A. G. Dolgolenko, A. G. Meshkovskii, and V. A. Shebanov—592.
- Nonresonant Interactions of Strange Particles**
- Resonant Interactions of Strange Particles**
- Analysis of the Reactions $\pi N \rightarrow \pi \pi N$ in the Energy Region Up to 1 GeV. B. A. Zhukov, L. L. Nemenov, and Juan Jung-fang—107.
- Inelastic $\pi\bar{p}$ Interactions at 17 BeV, With Emission of a Slow Recoil Proton. S. A. Azimov, B. K. Nikishin, I. V. Rechitskii, and V. M. Chudakov—123.
- THEORY OF STRONG INTERACTIONS AND GENERAL THEORY OF ELEMENTARY PARTICLES**
- Symmetries (Including Weak and Electromagnetic Interactions), Transformations**
- The Four-fermion Interaction and Lepton Masses. I. G. Ivanter and D. F. Zaretskii—132.
- Mass Formulas for Particles with Spins 1 and $\frac{3}{2}$ in Broken $SU(3)$ Symmetry. A. I. Vainshtein—137.
- Radiative Decays of Vector Mesons in $SU(6)$ Symmetry. M. P. Rekaló—277.
- A Remark on the $SU(6)_W$ Symmetry. O. G. Bokov—280.
- The Quark Structure and Masses of Strongly Interacting Particles. Ya. B. Zel'dovich and A. D. Sakharov—283.
- Nonleptonic Decays of Baryons in the Static $SU(6)$ Symmetry Model. M. P. Rekaló—318.
- Mass Calculations for Some Baryon and Meson Multiplets. I. I. Kostyrko—415.
- Broken $SU(6)$ -symmetry and Electromagnetic Properties of Baryons. Z. R. Babaev and V. S. Zamiralov—423.
- Decays of Meson Resonances in the $U(6,6)$ Symmetry Scheme. D. V. Volkov, É. A. Kuraev, and V. I. Tkach—426.
- Inelastic Neutrino Processes in $SU(3)$ Symmetry. V. I. Zakharov—428.
- Collinear Meson-production Processes in Neutrino-nucleon Interactions and $SU(6)_W$ Symmetry. M. I. Rekaló—432.
- On Dispersion Sum Rules and $SU(6)$ Symmetry. I. G. Aznauryan and L. D. Solov'ev—437.
- Symmetry Groups in Classical and Quantum Mechanics. P. Winternitz, Ya. A. Smorodinskii, M. Uhler, and I. Fris—444.
- Four-fermion Interaction and Electromagnetic Mass Differences of Baryons. I. G. Ivanter—596.
- Radiative Decay of 1^+ Mesons and Unitary Symmetry. Dao Vong Duc—599.
- "Common Propagator" for Mesons with Spin 2, 1, and 0 in Symmetry Theories. Cao Chi—601.
- Electromagnetic Interaction of the X Meson in Higher Symmetries. O. G. Bokov, Nguyen Van Hieu, and B. Sredniawa—603.
- Eightfold-way Formalism in $SU(3)$ and the 10- and 27-plets. V. I. Ogievetskii and I. V. Polubarinov—605.
- The Bernstein-Feinberg-Lee Hypothesis and Supercharged Particles. V. I. Zakharov and A. B. Kačdalov—615.
- Two-meson Annihilation of Baryons in Broken $SU(6, C)$ Symmetry. P. Winternitz and A. A. Makarov—619.
- Mass Formulas in the Inhomogeneous $SU(6,6)$ Group. A. V. Nikolov and I. T. Todorov—754.
- Mass Formulas in $SU(12) \supset Sp(6) \otimes SU(2)$ Symmetry. A. V. Nikolov, I. T. Todorov, and D. G. Fakirov—873.
- The Electromagnetic Current and Form Factors for the Meson 35-plet in Broken $SU(6, C)$ Symmetry. P. Winternitz, A. L. Zubarev, and A. A. Makarov—879.
- Nonleptonic Four-fermion Interactions with $\Delta S = 1$ and $SU(3)$ Symmetry. G. M. Radutskii, A. N. Tabachenko, and V. A. Filimonov—882.
- Conserved Tensor Currents and the Relativistic Structure of the $SU(6)$ Group. V. I. Ogievetskii and I. V. Polubarinov—885.
- Theory of Scattering and Reactions**
- Natural Rotation of the Neutron Spin Direction. V. G. Baryshevskii—51.
- Suppression of Large Transfers in Peripheral Interactions as an Effect Due to the Nucleon "Diffuseness." I. A. Kuchin, A. S. Tolebaeva, and P. A. Usik—72.
- The Role of Unphysical Partial Amplitude Singularities in Deuteron Photodisintegration. V. A. Kaminskii and Yu. V. Orlov—84.
- Polarization Tensor in the Scattering of Polarized Nucleons by a Polarized Proton Target. S. I. Bilen'kaya, P. Winternitz, F. Lehar, and Z. Janout—95.
- Interaction of Elementary Particles with Atomic Nuclei in the Energy Region 1–30 GeV. I. Z. Artykov, V. S. Barashenkov, and S. M. Eliseev—113.
- Analytic Properties of the Nonrelativistic Multichannel Scattering Amplitude. V. M. Kolomiets and Yu. V. Tsekhmistrenko—140.
- Cross Section for the Creation of $K\bar{K}$ Pairs in $\pi\pi$ Collisions in the Low-energy Region. P. S. Isaev and V. A. Matveev—144.
- Reconstruction of the Amplitude of the Vector Meson Production Reaction $\pi + N \rightarrow N + \omega(p)$. Doan Nhuong—451.
- ω^0 -meson Production in the Coulomb Field of a Nucleus. S. R. Kef'ner—454.
- Reconstruction of the Meson-nucleon Scattering Matrix in Experiments with a Polarized Target. S. M. Bilen'kii and R. M. Ryndin—457.
- On the Contribution of Statistical Processes to Elastic Scattering. I. N. Sisakyan and D. S. Chernavskii—462.
- Charge-invariant Analysis of Nucleon Scattering Experi-

- ments on $A \approx 3$ Nuclei. I. Ya. Barit and V. A. Sergeev—507.
- Are Inelastic Pion-nucleon Interactions at an Energy of 7.5 GeV Essentially Nonperipheral? I. G. Golyak and V. I. Rus'kin—622.
- Determination of the Spin and Parity of the Ω^- Hyperon. S. M. Bilen'kii and R. M. Ryndin—624.
- Polarization Effects in the Reaction $\gamma + p \rightarrow p + \eta^0$. L. A. Lazarenko—628.
- Spin Tests for Bosons Decaying into Three Spinless Particles. R. M. Ryndin—630.
- An Equation for the Four-particle Amplitude in Terms of the Two-particle One. N. N. Beloozerov—632.
- Unambiguous Phase-shift Analysis of Nucleon-nucleon Scattering at 23.1 MeV. S. I. Bilen'kaya, Yu. M. Kazarinov, F. Lehar, and Z. Janout—635.
- Complete Experiments for the Isobar Production in Meson Nucleon Scattering. M. S. Dubovikov—759.
- Isospin Conservation and Polarization Effects. S. M. Bilen'kii, L. I. Lapidus, R. M. Ryndin, and L. Sh. Shekhter—763.
- The Simplest Inelastic Processes at High Energies. K. A. Ter-Martirosyan—766.
- The Experimental Data on Charge Transfer of K Mesons and Nucleons at High Energies and the Theory of Complex Angular Momenta. V. N. Mel'nikov and K. A. Ter-Martirosyan—770.
- Resonance Scattering of Slow Particles by a Non-central Potential. L. A. Zhizhimov—776.
- Elastic pp Scattering Phase-shift Analysis at 657 MeV with Account of One-boson Exchange and Relativistic Coulomb Effects. L. S. Azhgirei—896.
- General Theoretical Problems**
- Quantum Field Theory with Indefinite Metric in Hilbert Space. A. D. Galanin—149.
- The Notoph and its Possible Interactions. V. I. Ogievetskii and I. V. Polubarinov—156.
- Lifetime of Intermediate States. A. I. Baz'—182.
- Nonlinear Heisenberg Operators in Quantum Field Theory. A. D. Sukhanov—291.
- Analytical Properties of the Non-relativistic Amplitude in a Soluble Three-particle Model. I. Sh. Vashkidze and G. A. Chilashvili—299.
- Analytic Properties of Euclidean Amplitudes. G. V. Efimov—309.
- The Pauli Principle and Unstable Elementary Particles. L. A. Khal'fin—316.
- Complex Momenta and the Representations of the Poincaré Group. S. S. Sannikov—416.
- Restrictions on the Energy Dependence of the S Matrix Owing to the Hermiticity of the Hamiltonian. A. I. Baz'—465.
- Angular Functions with Complex Angular Momenta. Ya. I. Azimov—469.
- Complex Angular Momentum States in Quantum Mechanics. S. S. Sannikov—638.
- The Velocity of Electromagnetic Radiation in Quantum Electrodynamics. M. I. Shirokov—774.
- Some Problems of Axiomatic Field Theory in the Zachariasen Model. A. V. Astakhov and A. D. Sukhanov—779.
- Graphical Methods in the Theory of Angular Momenta. L. A. Shelepin—784.
- Non-negative Nature of the Polarization Density Matrix. M. S. Marinov—899.
- ULTRAHIGH ENERGIES, COSMIC RAYS**
- The Lagrangian and Hamiltonian for Vector Electrodynamics in the Heisenberg Picture. A. A. Slavnov and A. D. Sukhanov—304.
- Experiment**
- Interaction of Elementary Particles with Atomic Nuclei in the Energy Region 1–30 GeV. I. Z. Artykov, V. S. Barashnikov, and S. M. Eliseev—113.
- Generation of Deuteron Nuclei in Cosmic Rays. B. M. Kuzhevskii—93.
- The Effect of the Polarization of the Medium on the Development and Energy Characteristics of Electron-photon Showers. A. K. Bakhtadze and I. P. Ivanenko—117.
- Angular Distributions of Muons in the Ground and Under Water and the Mechanism of Their Generation. N. P. Il'ina and L. I. Sarycheva—129.
- Comparison of the Average Characteristics of Extensive Air Shower with Nuclear-cascade Avalanches, Calculated Under Various Assumptions on Nucleon-nucleus Interactions. T. P. Amineva, L. G. Dedenko, and S. I. Nikol'skii—410.
- WEAK INTERACTIONS OF ELEMENTARY PARTICLES**
- Experiment**
- Measurement of π^+ Meson Lifetime. A. F. Dunaitsev, R. N. Pikhtev, Yu. D. Prokoshkin, and Yu. N. Simonov—74.
- Angular Distribution of High Energy Neutrons Emitted in the Absorption of Polarized μ^- Mesons in Ca. V. S. Evseev, V. S. Roganov, V. A. Chernogorova, Chang Jun-wa, and M. Szymczak—245.
- Search for New Decay Modes of the K_1^0 Mesons. M. Anikina, G. Vardenga, M. Zhuravleva, D. Kotlyarevskii, V. Novikov, É. Okonov, G. Takhtamyshev, Wu Tsung-fan, and L. Chkhaidze—257.
- Asymmetry in the Angular Distribution of High-energy Neutrons from μ^- Capture in Sulfur. V. S. Evseev, F. Kil'bing, V. S. Roganov, V. A. Chernogorova, and M. Szymczak—387.
- Theory**
- On Possible Effects of the Violation of CP Invariance in the Radiative Decays of Neutral K Mesons. A. D. Dolgov and L. A. Ponomarev—262.
- Inelastic Neutrino Processes in $SU(3)$ Symmetry. V. I. Zakharov—428.
- Polarization Effects in Leptonic Decays of Hyperons. V. A. Lyul'ka—564.

- Decay of Double Hypernuclei with Emission of Σ Hyperons. V. A. Filimonov—725.
- The Deuteron and Weak Interactions. I. I. Smirnov—729.
- Neutron Emission Asymmetry in Muon Capture. V. G. Zelevinskii—733.
- Disintegration of a Deuteron by a Neutrino. Yu. S. Kopysov and V. A. Kuz'min—740.
- Isotopic Spin in the Theory of CP -odd Weak Interactions. E. P. Shabalin—744.
- Calculation of β for Superallowed $0^+ \rightarrow 0^+$, $T = 1$, $\Delta T = 0$ β^+ Transitions and the Value of the Vector Interaction Constant G_V in Beta Decay. Yu. P. Suslov—854.
- Leptonic Decays of Hyperons. I. I. Alekseev and R. I. Sokolovskii—857.
- Interference of $K_S \rightarrow \pi^+ \pi^-$ and $K_L \rightarrow \pi^+ \pi^-$ Decays in Correlation Experiments with $K^0 K^0$ Pairs. V. I. Lyuboshitz and É. O. Okonov—859.
- Four-lepton Decays of Charged Pions and Kaons and Possible Anomalous Interactions of Leptons. L. Okun', B. Pontecorvo, and C. Rubbia—864.
- Nonleptonic Four-fermion Interactions with $\Delta S = 1$ and $SU(3)$ Symmetry. G. M. Radutskii, A. N. Tabachenko, and V. A. Filimonov—882.